

PARMELIA JAMESII, AN UNUSUAL SPECIES IN SECTION IMBRICARIA
(LICHENES) FROM AUSTRALIA AND NEW ZEALAND

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Parmelia jamesii, sp. nov.

Thallus adnatus, corticola, mollis, cinereo-albus, 5-10 cm latus, lobis sublinearibus, 1.5-3.0 mm latis, margine sparse ciliatis, superne planus, nitidus vel sparse opacus pruinosusque, aetate rugosus, apicem versus leviter albo-reticulatus, modice isidiatus, isidiis cylindricis, tenuibus, erectis, usque ad 0.3 mm altis, subtus niger, modice rhizinosus, rhizinis simplicibus vel pauce squarrose furcatis. Apothecia ignota.

Chemistry: Atranorin in the cortex, fumarprotocetraric acid and protocetraric acid (trace) in the medulla (identified with thin-layer chromatography).

Holotype: On Nothofagus by the coast, Wellington, North Island, New Zealand, collected by P. W. James, NZ2118, January 1963 (US; isotypes in BM, TNS).

Additional specimen examined: South side of Monga Mountain, Braidwood Distr., N.S.W., Australia, Weber & McVean L-51532 (COLO, US).

The distinguishing features of this species are the isidia, unusual development of rhizines, and chemistry, this being one of the very few species in subgenus Parmelia with fumarprotocetraric acid. Superficially the species seems to belong in section Hypotrachyna because of the sublinear narrow lobes, much as in P. imbricatula, but the rhizines are not dichotomously branched. While the rhizines are mostly simple, some have distinct short side branches typical of squarrosely branched species in section Parmelia, where, in fact, I had tentatively placed the species, in spite of the fairly obvious marginal cilia. I concluded that P. jamesii is best assigned to section Imbricaria on the basis of the fine structure of the surface of the cortex. There are numerous pores at X500 under the scanning electron microscope such as one would expect to find in section Imbricaria. No pores are produced in section Parmelia.